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Wheat Situation

Economics, Statistics,
and Cooperatives Service

U.S. Department of
Agriculture

WS-248

MAY
1979

TABLE 1.--WHEAT: MARKETING YEAR SUPPLY, DISAPPEARANCE, AREA AND PRICES, 1975-79 *

YEAR BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS MAY 31		
					DOMESTIC USE					EX-	TOTAL			
	BEGIN-NING STOCKS	PRODUC-TION	IM-PORTS 1/	TOTAL	FOOD 2/	ALC. BEVER-AGES	SEED	FEED 3/	TOTAL	PORTS 1/	DISAP-PEARANCE	GOVT. OWNED 4/	PRI-VATELY OWNED 5/	TOTAL
	MILLION BUSHELS													
1975/76	435.0	2,122.5	2.4	2,559.8	588.6	0.1	99.0	34.0	721.7	1,172.9	1,894.6	---	665.3	665.3
1976/77	665.3	2,142.4	2.7	2,810.3	588.0	0.1	92.0	68.4	748.6	949.5	1,698.1	---	1,112.2	1,112.2
1977/78	1,112.2	2,036.3	1.9	3,150.5	586.5	0.1	80.0	183.3	849.9	1,123.9	1,973.8	45.7	1,131.0	1,176.7
1978/79 7/	1,176.7	1,798.7	2.0	2,978.0	590.0	6/	87.0	175.0	852.0	1,200.0	2,052.0	N.A.	N.A.	926.0
1979/80**	926.0	2,075.0	2.0	3,003.0	605.0		83.0	225.0	913.0	1,050.0	1,963.0	N.A.	N.A.	1,040.0
1979/80***	926.0	1,735.0	2.0	2,663.0	595.0		87.0	125.0	807.0	1,300.0	2,107.0	N.A.	N.A.	556.0

	AREA				YIELD	AVERAGE PRICES				GOVT. SUPPORT PROGRAM		
							CHICAGO	KANS. CITY	MINNEAPOLIS			
	NAT. PROGRAM	SET-ASIDE AND DIV-ERTED	PLANTED	HAR-VESTED FOR GRAIN	PER HARVESTED ACRE	RECEIVED BY FARMERS	NO. 2 SOFT RED WINTER	NO. 1 HARD RED WINTER, ORD. PROT.	NO. 1 DARK N. SPRING, 13% PROT.	NATIONAL AVG. LOAN RATE	TARGET PRICE	TOTAL PAYMENTS TO PARTICI-PANTS
	MILLION ACRES				BUSHELS	DOLLARS PER BUSHEL						MIL. DOL.
1975/76	53.5	/	74.8	69.4	30.6	3.56	3.54	3.74	4.17	1.37	2.05	51
1976/77	61.6	/	80.2	70.8	30.3	2.73	2.81	2.88	3.23	2.25	2.29	145
1977/78	62.2	/	75.1	66.5	30.6	2.33	2.56	2.72	2.83	2.25	9/2.90	996
1978/79 8/	58.8	8.4	66.1	56.8	31.6	2.94				2.35	3.40	615
1979/80**	57.1					2.80-3.00				2.35	3.40	
1979/80***						3.70-3.90						

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENT. 2/ USED FOR FOOD IN THE UNITED STATES, U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL; APPROXIMATES FEED USE. 4/ UNCOMMITTED, GOVERNMENT ONLY. 5/ INCLUDES TOTAL LOANS. 6/ LESS THAN 50,000 BUSHELS. 7/ ESTIMATED. 8/ PRELIMINARY. 9/ UNPLANTED PORTION OF ALLOTMENT QUALIFIED FOR $2.47. N.A. = NOT AVAILABLE. *TOTALS MAY NOT ADD DUE TO ROUNDING. **ALTERNATIVE I ASSUMES RELATIVELY FAVORABLE PRODUCTION CONDITIONS WORLDWIDE. ***ALTERNATIVE II ASSUMES RELATIVELY UNFAVORABLE PRODUCTION CONDITIONS WORLDWIDE.

THE WHEAT SITUATION

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Approved by the
World Food and Agricultural
Outlook and Situation Board
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SUMMARY

Wheat Outlook Favors a Larger 1979 Crop

Despite the late arrival of spring and planting delays, generally good moisture conditions and expanded acreage favor a 1979 wheat crop above last year's 1.8 billion bushels but short of 1977's 2-billion-bushel crop. Harvest is beginning on a new winter wheat crop that is estimated at 1.39 billion bushels, 11 percent more than last year. Hard Red Winter acreage is slightly larger but Soft Red Winter producers seeded a fourth more than the abnormally small 1978 crop. Growers intend to increase 1979 spring wheat acreage by 4 percent, but late snow melt accompanied by wet soils has delayed seeding.

Uncertainty surrounds the early-season U.S. wheat outlook for 1979/80 because weather adversities affect the crop right through harvest. Therefore, two weather-related crop year alternatives are used to indicate a possible range for the new crop. Under favorable growing conditions in the United States and throughout the world, the 1979/80 U.S. wheat crop year would feature: a near-record crop with supplies slightly above 1978/79; decreased export demand; a pickup in wheat feeding; increased carryover stocks; and some weakening of farm prices. Poor worldwide weather conditions feature: a U.S. crop slightly below 1978's; exports at a new record; dwindling stocks; total use at a new high; and a strengthening price picture.

Wheat disappearance during June 1978-March 1979 moved at a record-setting pace. Because of strong exports, likely to be the second largest on record, wheat use exceeded 1.7 billion bushels, about a tenth above last year. Total disappearance for 1978/79 will likely be a record, topping 2 billion bushels. Thus, yearend wheat stocks will decline for the first time in 5 years, and will be a fifth below a year earlier.

For seven consecutive months, average farm wheat prices have moved only a few cents around the $3-per-bushel level. Not since the early 1970's have prices been this steady. This period of modest price fluctuation was largely influenced by the

large farmer-owned reserve stocks and producers' orderly wheat marketing. Despite a slowing export movement since January, prices have remained at their highest level in 4 years. Late season prices have approached the $3.29-per-bushel release level, but as the 1979 winter wheat harvest draws closer, prices may ease as buyers shift to a new-crop basis.

As of early May, crop conditions point to a decline in 1979 world wheat production. World trade is likely to remain large and U.S. exports are expected to continue near this year's level.

For the first time since establishing the farmer-held wheat reserve, national average wheat farm prices advanced above the $3.29-per-bushel release level. Thus, on May 16, USDA released the more than 400-million-bushel wheat reserve. Until June 29, producers may, but are not required to, redeem their reserve wheat loans. On June 29, the Department will review the average wheat farm price to determine if the release authorization should remain in effect.

OUTLOOK FOR 1979/80

Increased Acreage Ups 1979 Winter Wheat Crop

Reflecting strong wheat prices last fall, farmers increased winter wheat acreage by 8 percent to 51.5 million acres. While acreage was up only 4 percent in major Hard Red Winter States, Soft Red Winter producers seeded a fourth more than the abnormally small area planted for the 1978 crop. Dry soil conditions slowed the good plant development needed before winter dormancy, but widespread snowcover and spring rains have restored subsoil moisture reserves. Pacific Northwest (PNW) White Winter wheat producers increased planting slightly but experienced abnormally high winterkill because of extreme cold and poor snowcover.

Based on conditions as of May 1, the 1979 winter wheat harvest was estimated at 1,391 million bushels, 11 percent above last year. Chances are 2 out of 3 that the final harvest will not differ from the May 1 forecast by more than 85 million bushels.

Spring Wheat Acreage Also Up; Wet Soils Delay Planting

Spring wheat growers indicated on April 1 their intentions to increase acreage 4 percent over last year. Durum farmers plan to seed 7 percent more. PNW producers nearly doubled spring White wheat plantings because of reseeding a relatively sizable acreage of winter White wheat that suffered severe winterkill. Hard Red Spring acreage, by far the largest of all spring wheats, will stay about the same as 1978—13.5 million acres.

Spring wheat seeding was far behind normal because of wet soils and cool temperature. By early May, about a fifth of the area had been seeded, compared to a norm of about 75 percent. These planting delays could substantially reduce Durum and Northern spring wheat yields from last year's record high.

1979 Crop Likely To Be Larger

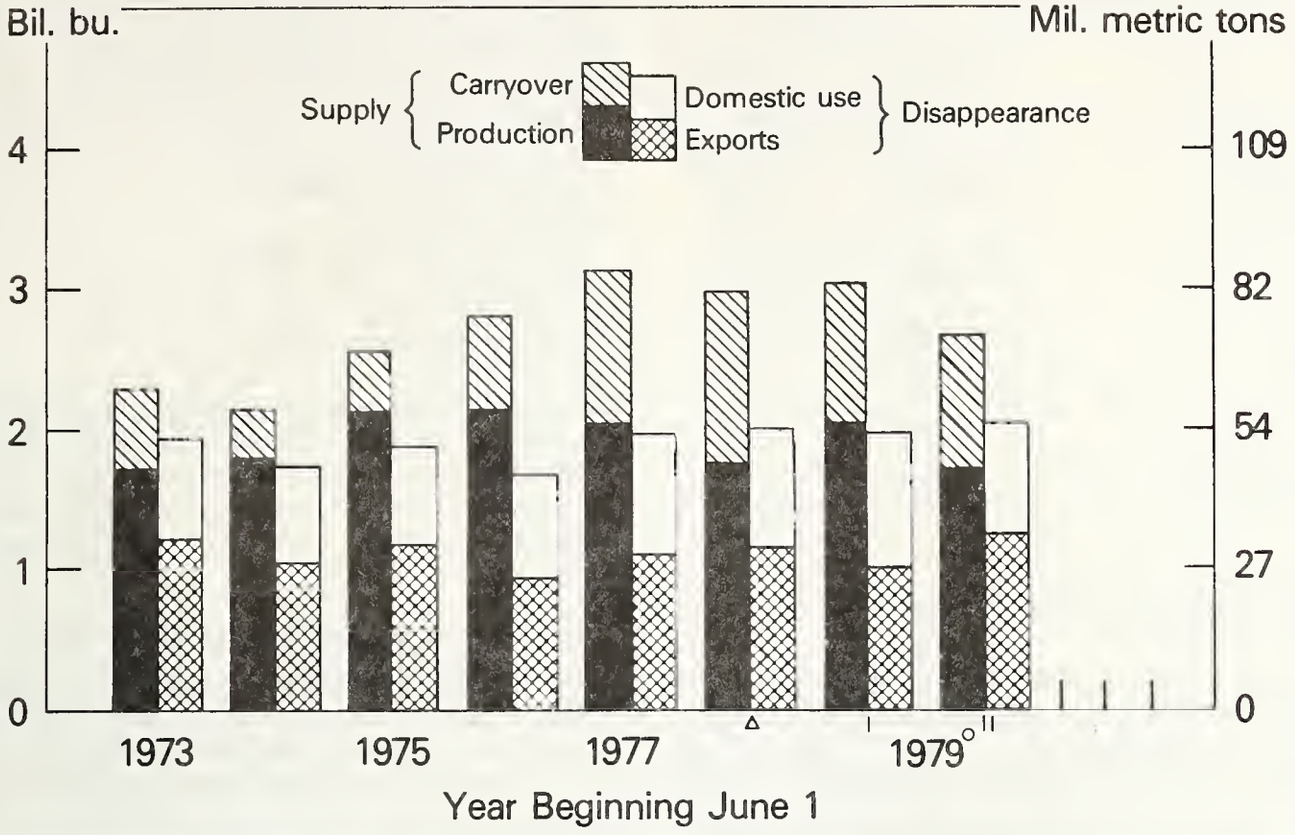
Excellent precipitation in the last few months has considerably brightened prospects for the total 1979 wheat crop. It appears that production will be up from last year's 1.8 billion bushels, but short of the 2-billion-bushel mark. Because of the lowest carryin stocks in 3 years, total 1979/80 supply could be down slightly from 1978/79 and substantially off the record 3.2 billion bushels of 1977/78.

Increased world wheat stocks levels, particularly in major exporting nations, will keep competition among exporters keen. U.S. wheat exports may be maintained near this year's level, but at this early date, the estimate ranges from 1,050 to 1,300 million bushels. Wheat feed use in 1979/80 should not greatly exceed this year's amount, but harvesttime developments (sprout damage and poor quality) often have an important bearing on this usage. Food use is projected to increase in line with recent growth trend, reflecting inclusion of more staple food products in diets. Wheat food products are competitively priced relative to other food items during this period of increasing prices. Total 1979/80 wheat use will probably again exceed the crop, and stocks would be moderately lower than the estimated 926 million bushels on June 1, 1979.

These supply/demand prospects suggest that wheat prices may follow 1978/79's pattern, with the average farm price up modestly from this year's estimated $2.94 per bushel.

In some areas, the large farmer-held reserve stocks may tax storage capacity at harvest and be a pricing factor early in the season. But wheat producers have completed a relatively successful 1978/79 season of orderly marketing of their wheat

Wheat Supply and Disappearance



△Preliminary. ○Projected. Alternative I and Alternative II.

USDA

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which, if followed in 1979/80, could aid in more steady price levels.

Impact of Weather Alternatives

Uncertainty always surrounds the early-season outlook for 1979/80 since weather adversities affect the crop until it is in the bin. While the current winter wheat crop is less vulnerable, the spring crop faces weather uncertainties for the entire growing season. However, since winter wheat comprises the bulk of the crop, uncertainty for the total 1979 U.S. wheat crop is relatively small.

Two supply-use alternatives are presented to underscore these uncertainties (table 1):

Alternative I assumes relatively high production worldwide resulting from generally favorable crop conditions. Under this situation, average yields could be moderately higher, resulting in a U.S. crop of around 2,075 million bushels, 15 percent above 1978's crop. This would bring supply levels to near the record of 3.2 billion bushels in 1977/78. Another large world crop (1978/79's was a record) would limit importers' demand for U.S. wheat and increase competition among major exporters. Exports would be down, but still above the 1-billion-bushel mark.

Total disappearance would fall short of the crop and stocks would increase about 12 percent. This would force price levels within a range of $2.80 to $3.00 per bushel.

Alternative II assumes relatively unfavorable weather here and abroad. Some losses would occur to winter wheat but spring wheats would be hurt the most. Yields and harvested rates would decline, reducing the U.S. crop to slightly below 1978's crop. In turn, total supplies would decline by around 300 million bushels to their lowest level in 4 years.

A poor world wheat crop would increase import demand. Near-record large 1978/79 world wheat stocks would fill some of the added demand. U.S. exports could reach an all-time high of 1.3 billion bushels. Higher wheat prices would limit wheat feeding. Total disappearance would exceed the crop, resulting in a substantial stock drawdown. Such a drawdown would move farm prices upward to perhaps the $3.70-$3.90 range, considerably higher than the 1978/79 season's average of $2.94 per bushel.

Wheat: Supply and disappearance

Item	June-March	
	1977/78	1978/79
	Million bushels	
June 1 stocks	1,112	1,177
Production	2,036	1,799
Imports	1	1
Total supply	3,149	2,977
Exports	886	1,027
Food	492	493
Seed	56	62
Feed	187	171
Total disappearance	1,621	1,753
April 1 stocks	1,528	1,224

Wheat Disappearance Banner High; Stocks Down

Wheat disappearance (June-March) moved ahead at a record-setting pace. Because of strong exports, wheat use totaled over 1.7 billion bushels, nearly 10 percent above last season. Even with the expected slowdown of exports for the remainder of the year, total 1978/79 wheat disappearance will be an all-time high of 2.1 billion bushels. Thus, year-end stocks will decline for the first time in 5 years. This strength in total wheat use caused a decline in April 1 stock levels to 1.2 billion bushels compared with last April's record 1.5 billion. Inventories of Hard Red Winter wheat were down about 30 percent, while Soft Red Winter stocks are off over 60 percent. April supplies of Hard Red Spring and soft White wheat were about the same as a year earlier, while Durum wheat stocks were up about 15 percent.

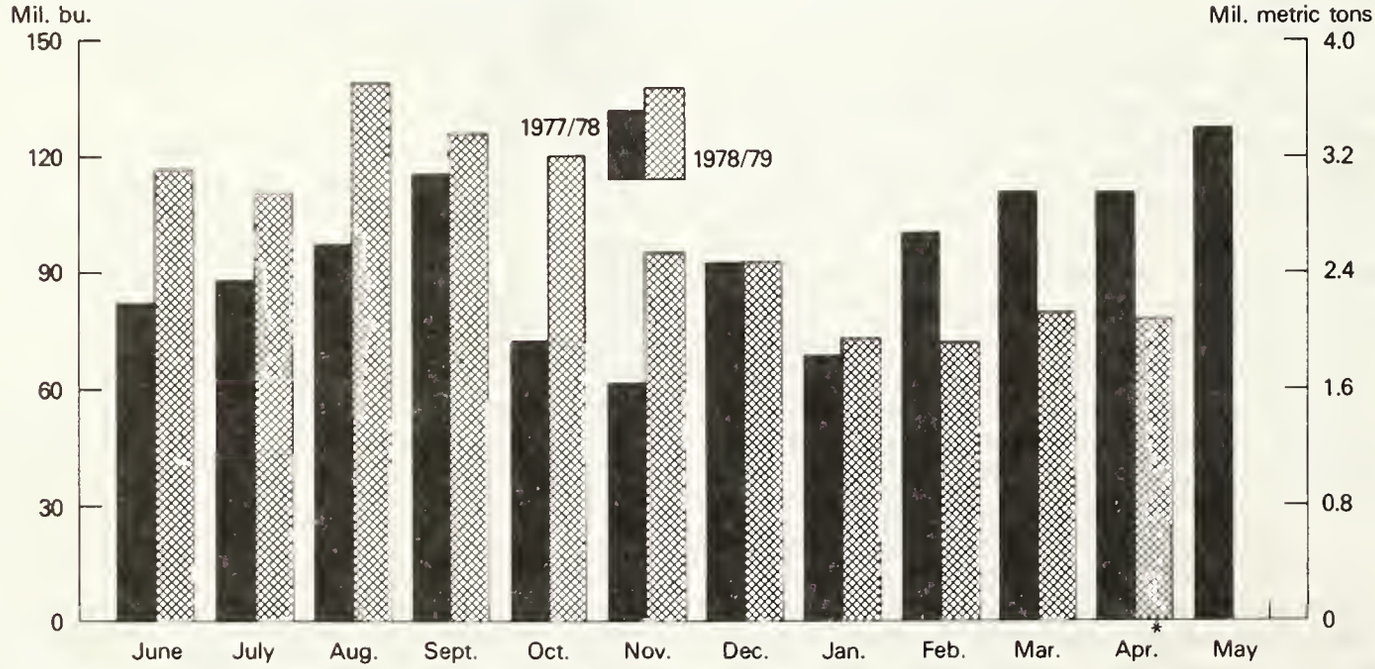
More farm storage capacity, particularly in the Central Plains, and establishment of the farmer-held wheat reserve have resulted in sharp increases of on-farm stored wheat.

As of April 1, over half of the wheat supply was on-farm compared with 42 percent last April and 37 percent two years earlier. Over a third of total April stocks were in the farmer-held reserve or in Commodity Credit Corporation (CCC) inventory. Nearly 15 percent were 1978 crop outstanding loans.

Wheat Exports Heaviest in Six Years

June-March wheat export shipments were over 1 billion bushels. Not since the record 1973/74 export season have overseas loadings reached this mark in a 10-month period. Unusually large exportable supplies in major wheat exporting countries—EC, Australia, Argentina, and Canada—has caused a very competitive foreign trade situation, particularly during January-March, which cut into the strong U.S. early season export pace. January-

U.S. Wheat Exports By Months, Marketing Years 1977/78 and 1978/79



*1978/79 estimated. Includes flour and products in wheat equivalent.

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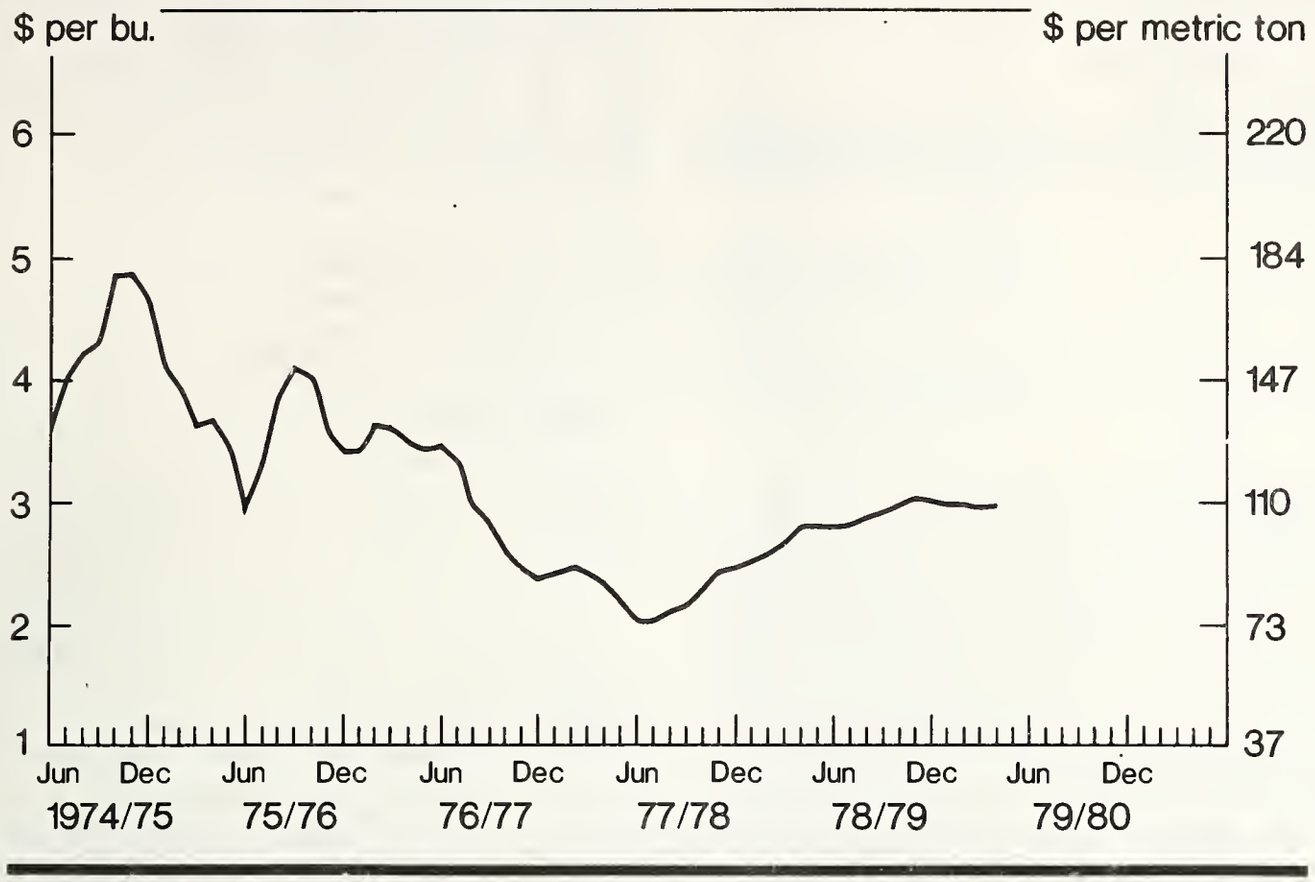
Wheat Prices Received by Farmers



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March shipments plunged 36 percent from an average monthly loading rate of 115 million bushels during the first half of 1978/79. Outstanding sales as of April 29 totaled 134 million. All this amount may not be shipped before May 31 so contract adjustments will push some loadings into the 1979/80 marketing year. Still, estimated 1978/79 wheat exports of 1.2 billion bushels will exceed last year and be the second heaviest on record. New crop year commitments are already close to last year's level, suggesting reasonably heavy shipments early in the new season.

Farm Wheat Prices Hold Firm

The average monthly wheat price received by farmers has shown little change for the last seven months. Since last October, the average farm value has moved only a few cents up and down from $3 per bushel. Not since the early 1970's have prices been this steady. While there are a variety of wheat price levels throughout the United States, this pattern of narrow price fluctuations seems to hold true for all wheat classes except Soft Red Winter (SRW). Extremely tight SRW supplies continually pressured prices upward. Producers seem to have established a market price goal and considered selling only when that goal was reached.

Holding wheat from the market has always been a marketing alternative for growers, but this strategy may have been more prevalent in 1978/79 which, in turn, aided higher and more firm price levels. To some extent, the construction of more on-farm storage over the past few years has been responsible for this marketing approach.

Since January, wheat market prices have held remarkably well in spite of a slowing export demand. Continued grain transportation problems, producer holding, dwindling available supplies, and the generally higher level of commodity markets have kindled moderate gains since January. Late season prices advanced to near the $3.29-per-bushel reserve release level. Markets should ease as the 1979 harvest draws closer and buyers shift to a new-crop basis. With a good share of June 1 carryin stocks in the grain reserve, prices this spring and summer may be above those of a

year ago. Much depends upon export commitments in the early part of 1979/80 and the final outturn of the 1979 crop.

Wheat Loans Extended

Reflecting higher price levels, growers' use of the CCC loan program has been less than half of last year's heavy placements. By early May over 40 percent of these loans had been redeemed, leaving about 145 million bushels outstanding. Because the farmer-owned reserve program is not open to 1978-crop wheat, many outstanding loans would become due during the new crop harvest. However, as of mid-March, producers were given the opportunity to extend these loans for 6 months, thereby further easing downward pressure on wheat prices at harvest.

Wheat price support loan status, 1974-78 crops, as of May 2, 1979

Item	Crop of—					
	1974	1975	1976	1977	1978	Total
WHEAT	*Million bushels*					
Placed under CCC loan	36	48	499	591	254	xxx
Redeemed by farmers	36	48	236	393	111	xxx
Delivered to CCC	0	0	48	2	---	50
In reserve program	---	---	214	190	---	404
Loans outstanding	0	0	1	6	143	150
Total in reserve, CCC, and loans outstanding	0	0	263	198	143	604
	Dollars per bushel					
National average loan rate	1.37	1.37	2.25	2.25	2.35	
Average farm price						
Season	4.09	3.56	2.73	2.33	2.94	
Monthly, low/high	3.47-4.87	2.92-4.11	2.19-3.46	2.03-2.82		
	Reserve "trigger" prices					
	Dollars per bushel					
Release	xxx	xxx	xxx	3.15	3.29	xxx
Call	xxx	xxx	xxx	3.94	4.11	xxx

WHEAT BY CLASS

HRW Stocks Dwindle, 1979 Crop Likely To Be Larger

This season's strong Hard Red Winter (HRW) exports have significantly reduced the large 1978/79 stocks. April 1 stocks are down about 230 million bushels from last year and nearly 900 million below the early season supply level. Of the nearly 575 million bushels of HRW stocks on April 1, over 55 percent were in the farmer-held reserve or owned by CCC, indicating tight supplies of readily marketable HRW. Total 1978/79 disappearance will far exceed the 834-million-bushel crop and pull the June 1 carryover down to around 415 million bushels, the lowest in 3 years.

HRW exports have softened since January but are expected to total around 625 million bushels for the year, 17 percent above 1977/78 and the third largest on record. June-March exports totaled nearly 525 million bushels, and early May outstanding sales show another 70 million sold to foreign destinations for delivery by the end of the crop year—May 31.

HRW prices (Kansas City ordinary) have advanced after weakening during midwinter and have exceeded the $3.50-per-bushel price of last fall. Prices could moderate in the remaining weeks of 1978/79 in response to slowing export sales and the outlook for a large 1979 crop. Conversely, some price firmness could come from producers having the option of extending maturity dates for 6 months on 60 million bushels of outstanding 1978 crop loans.

Based upon conditions as of May 1, the 1979 HRW crop could approach 930 million bushels,

almost 100 million above 1978's. However, combined with a reduced June 1 carryover, the 1979/80 HRW supply will be down about 15 percent from a year ago.

Hard Red Spring Exports Heavy

Export sales have been very strong this season with the year's total expected to exceed 220 million bushels, second only to the record shipments of 1973/74. Higher protein HRS wheats have been favorably priced with HRW for most of the marketing year, resulting in a pickup in sales to Western Europe and Middle East countries. Also, this year's large Chinese wheat purchase from the United States included 20 million bushels of HRS.

April 1 stocks of Hard Red Spring (HRS) totaled around 400 million bushels, about on par with a year ago. Over 50 percent of these stocks are in the 3-year farmer-held reserve or owned by CCC, compared with about 20 percent of last April's stock. Another 20 percent of the stocks are under loan.

HRS use during June-March was up nearly a third from the same period a year ago, mainly because of strong exports. Total 1978/79 disappearance should about match 1978's production, resulting in yearend carryover stocks about equal to the carryin level.

Although HRS cash market prices have shown some seasonal strength, they remain inverse to their typical premuim relationship with HRW. This competitive situation may help further expand spring wheat export sales and domestic mill demand. But the approaching harvest of a larger 1979 HRW crop may forestall significant sales until the 1979/80 HRS/HRW price relationship becomes apparent.

As of April 1, HRS wheat growers intended to plant about the same acreage as in 1978. This would indicate producers' participation in the set-aside program may about match last year's. Soil moisture levels in the Northern Plains appear excellent for a good growing season, but planting lags far behind normal because of wet soils and cool temperatures. These seeding delays could reduce yields considerably below 1978's near-record level.

Durum Exports Strong: Supplies Large

Durum stocks on April 1 totaled around 105 million bushels, 15 percent above last year. As of March 31, 15 million bushels were under loan and 11 million in the farmer-held reserve.

Exports have also been very heavy through 1978/79, with shipments expected to surpass 1972/73's record level of 67 million bushels. Most of this flurry was the result of a strong world demand for Durum because of last year's smaller world crop. Final export loadings could reach a new high of over 70 million bushels. Outstanding commitments for delivery in 1979/80 point to a continuing strong export schedule.

Durum wheat: Planted acreage

State	1977	1978	1979
	1,000 acres		
Minnesota	85	100	95
Montana	230	300	290
North Dakota	2,600	3,300	3,700
South Dakota	145	195	185
Subtotal	3,060	3,895	4,270
Arizona	89	95	65
California	30	120	45
New Mexico	4	([1])	([1])
U.S. total	3,183	4,110	4,380

[1] Estimate discontinued in 1978.

While 1978/79 domestic use is projected to remain on a growth trend, June-March mill grind barely kept pace with last year's rate, reflecting a mill grind shortfall due to transportation tieups during the winter. In addition, more Hard Spring wheat than usual may be spilling into the pasta flour market because of protein premiums.

Prices of No. 1 Hard Amber Durum (medium) Minneapolis moved up seasonally from $3.60 in January to $3.70 in late April. The large June 1 carryover and the prospects for increased production dim prospects for significant price rises in the coming year.

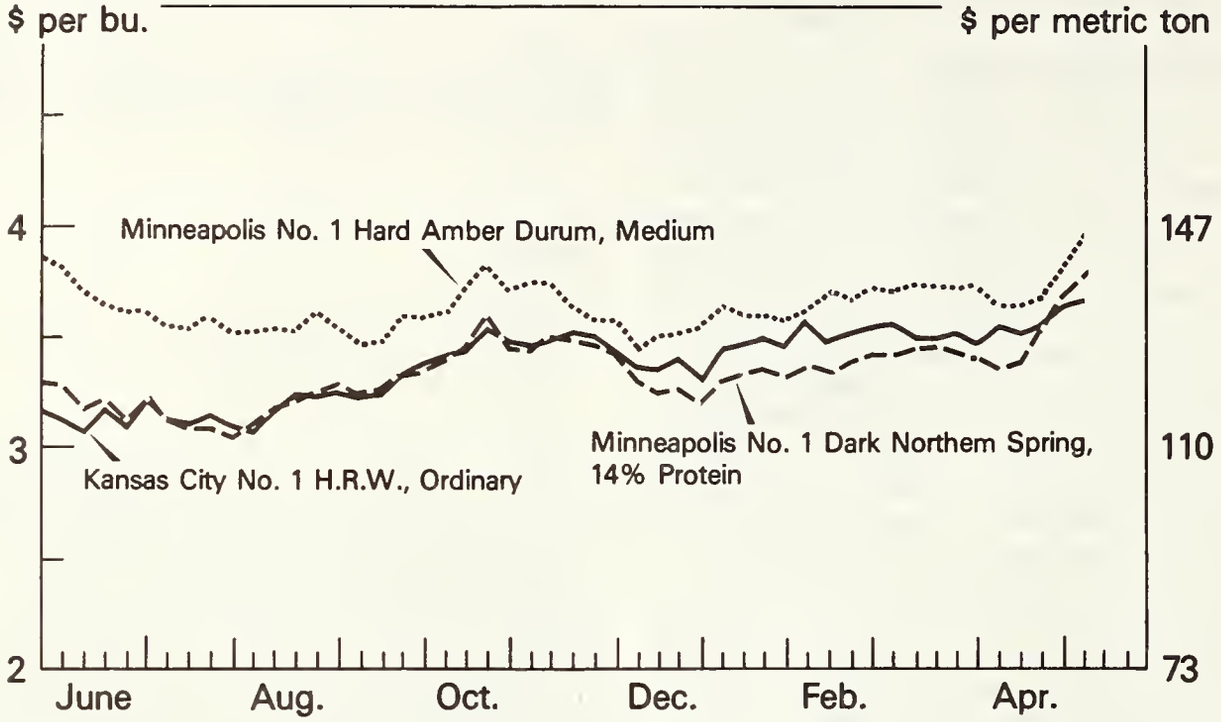
Durum growers intend to plant 4.4 million acres, 7 percent above last year and nearly 40 percent more than 1977's acreage. North Dakota growers, with 84 percent of total U.S. Durum acreage, were expected to increase 1979 seedings—12 percent more than a year ago. Plantings in other States are expected to decline, the largest coming in the "desert" Durum areas where California and Arizona farmers cut acreage by half. Spring seeding delays could substantially reduce yields below last year's record 33 bushels per acre.

SRW Stocks Down Sharply: New Crop Prospects Up

Stocks of Soft Red Winter (SRW) totaled about 45 million bushels on April 1. This is down 60 percent from a year ago and the lowest level since the extremely short supplies of 1973/74. Adding to this tight SRW supply situation are the 5 million bushels of reserve and CCC stocks not readily available to the market.

Reflecting the tight supply, June-March disappearance slipped nearly 30 percent below the pace of a year ago. Most of this decline occurred as

Cash Wheat Prices, 1978/79*



* Thursday price

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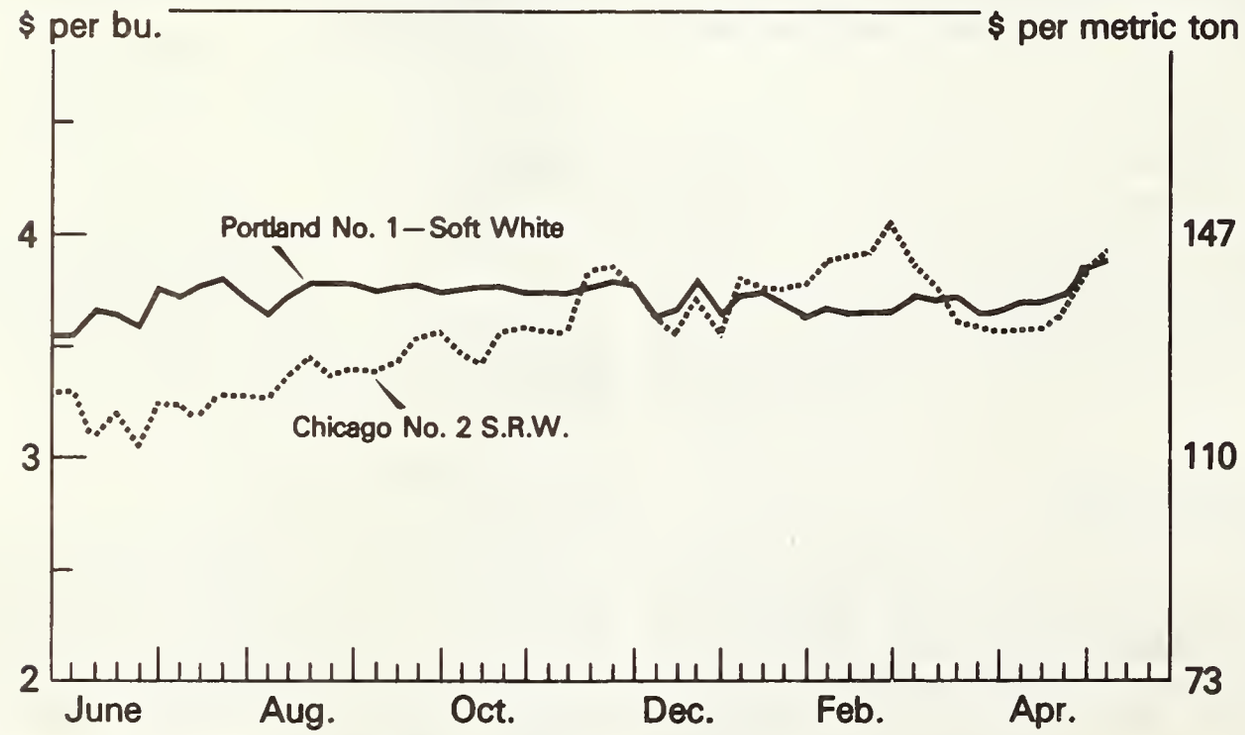
Cash Wheat Prices, 1978/79*



* Thursday price.

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export sales dropped 75 million bushels because of SRW's premium price levels. Total 1978/79 exports are expected to be at the lowest level in 5 years, or about half of the record 197 million bushels shipped in 1977/78.

Since January, SRW cash market prices rose 30 to 50 cents per bushel over Kansas City and Minneapolis hard wheat prices, and 10 to 20 cents over Portland soft White wheat. Chicago cash prices briefly shot above $4 per bushel as March futures contracts were coming due and a shortage of deliverable stocks existed. SRW prices are expected to soften as the larger new crop eases the supply situation. However, the total 1979/80 SRW supply may not greatly exceed 1978/79's 273 million bushels. This suggests that next year's SRW price outlook may not differ much from this year. An estimated 25-percent increase in 1979 SRW acreage may produce a crop of around 275 million bushels. Minor winter damage, more spring fertilizing, and less acreage abandonment could increase the 1979 crop estimate.

White Wheat Exports Slow, Total 1979 Crop May Match Last Year's

White wheat stocks on April 1 totaled around 100 million bushels, down about a tenth from a year ago. Nearly 10 million bushels were under loan and 15 million in the 3-year reserve program.

June-March domestic use was up slightly from the 1977/78 level, reflecting early season feeding of sprout-damaged wheat. Mill grind was up mainly because of increased demand for low protein flour in the face of the tight supply and high price of SRW.

White wheat exports during June-March (155 million bushels) continue to exceed last year's pace by about 10 percent. The largest share of shipments was in the first half of 1978/79 trade year when the United States was the sole source of major exportable soft wheat supplies. By the middle of the marketing year, competition from the large wheat crop in the Southern Hemisphere began to temper U.S. export shipments. Since January, White wheat exports have slipped over 30 percent below the same period in 1977/78. Delays in shipments to Iran caused some of this decrease. Still, commitments as of early May indicate 1978/79 White wheat exports may slightly exceed last year's 174 million bushels.

Strong export demand and producer holding have maintained Portland White wheat prices in a narrow range around $3.70 per bushel for most of this season. This price picture is likely to continue for the remainder of the marketing year with new export bookings expected to be light, but May 1 indications of a smaller 1979 winter white crop will pressure price advances.

Last fall, Pacific Northwest (PNW) wheat farmers seeded about 4 percent more White winter wheat. However, severe winter cold during periods of no snowcover caused above-normal freeze losses to winter wheat fields. Growers are expected to reseed these acres to spring White wheat varieties. Overall, 1979 White wheat planted acreage (Western, Eastern, and Spring) should be up about 20 percent, but the effect of heavy reseeding in the PNW will reduce this percentage. Conditions as of May 1 indicate lower yields in the PNW will also reduce total 1979 White production prospects.

WORLD WHEAT OUTLOOK

Production Projections for 1979

World 1979 wheat output is projected under two alternatives—generally favorable and unfavorable worldwide crop conditions. World wheat production under the former would be slightly down from last year's record 437 million metric tons and, under the latter, would be slightly above 1977/78's short crop of 382 million tons (table 11).

Early developments suggest that world production may decline. Winter seedings were below intentions, especially in north European USSR, and wet weather delayed fall plantings in Eastern Europe. However, the reduced winter seedings in USSR and Eastern Europe will be offset by increased sowing of spring wheat and barley. In Western Europe, except France, seeding progress was good; however, France's wheat crop is forecast to be down 4 million tons from 1978's 21.1 million tons due to retarded germination and frost damage. Spring seeding in the USSR and Europe is getting off to a very slow start due to wet and cold weather.

In China, some drought areas have received rainfall, but some parts of eastern and central China are still dry. Recent rainfall in the north improved prospects considerably for winter grains, especially winter wheat. In India, a record crop is likely for the fourth consecutive year.

World Wheat Use Slightly Up; Trade To Remain Strong

World consumption is projected to increase about 1 to 3 percent because of increased

Wheat: World wheat supply and distribution, marketing years 1970-79[1]

Year	Area harvested	Yield	Beginning stocks[2]	Production	Total exports	Utilization total[3]
	Million ha.	*Metric ton/ha*		--- *Million metric tons* ---		
1970/71	207.0	1.52	97.4	315.5	56.2	338.9
1971/72	212.9	1.64	74.0	348.8	56.0	341.2
1972/73	210.8	1.63	81.1	343.2	71.7	361.1
1973/74	216.8	1.72	63.1	372.4	72.8	364.7
1974/75	219.9	1.62	70.3	357.2	68.1	363.3
1975/76	225.0	1.56	63.6	350.1	66.5	350.3
1976/77	232.5	1.79	62.9	415.1	62.8	379.7
1977/78	225.9	1.69	98.4	381.8	72.9	395.6
1978/79[4]	226.0	1.93	84.6	437.0	71.7	416.4
1979/80[5] I			104.0	429.0	69.0	431.0
1979/80[5] II			90.0	395.0	79.0	411.0

[1] Data in this table are based on aggregate of differing local marketing years, and will therefore differ from July-June data appearing elsewhere in this report. [2] Stocks data are only for selected countries and exclude such important countries as USSR, China, and part of Eastern Europe for which stocks data are not available; the aggregate stocks levels have, however, been adjusted for estimated year-to-year changes in USSR grain stocks. [3] For countries for which stock data are not available, or for which no adjustments have been made for year-to-year changes, utilization estimates assume a constant stock level. [4] Preliminary. [5] Projected. Alt. I reflects favorable production conditions worldwide; Alt. II assumes unfavorable production conditions worldwide.

Source: Foreign Agricultural Service. *World Grain Situation: Outlook for 1979/80*, FG-7-79, May, 1979.

population and growth in real income in the developing countries.

World wheat trade may equal or exceed this year's 72 million tons, but U.S. exports are forecast to decline because of large supplies held by major competitors. Some of the developments likely to affect the world wheat market:

- Export competition from Australia and Canada will continue strong because of record exportable surpluses.
- Canadian wheat production is expected to increase marginally in 1979. Transportation difficulties that frequently delayed deliveries to export terminals during last season may gradually be remedied in the coming year. Exports are expected to increase about a million tons in 1979/80 to over 15 million tons.
- Australia's wheat production is likely to be down sharply from 1978's extraordinary 18-million-ton record. Because of large stocks, the Australian Wheat Board will encourage exports at capacity levels. Australia's wheat exports may approach 11 million tons in 1979/80, up sharply from the previous year's 6.6 million tons.
- The European Community should end the 1978/79 marketing year with relatively high wheat stocks—over 8 million tons. However, with an expected smaller 1979 crop, EC wheat exports are not expected to reach this year's estimated 9.4 million tons.
- Import demand may increase, particularly in developing countries, resulting from possible reduced crops, increased population, and higher disposable incomes.

RYE HIGHLIGHTS

The bumper rye harvest in 1978 has resulted in extremely large supplies hanging over the marketplace. April 1 stocks were double a year earlier. For most of the season, prices of No. 2 rye at Minneapolis have remained steady within a narrow range of $2.30-$2.40 per bushel. Early May prices were almost $1 below a year ago, while Chicago Soft Red Winter wheat prices are running $1.35-$1.40 above rye.

Despite the low price level relative to all wheat classes, total rye disappearance does not show any significant increase. Indicated rye feed use has

gone up only 15 percent while supplies are nearly 40 percent above a year ago. Yearend rye stocks will be the highest in five years.

1979 Rye Crop May Be Up

Last fall, growers seeded 3.1 million acres of rye for all purposes, up 3 percent from 1978 and the largest acreage since 1973. Moisture conditions in the northern rye-growing areas are excellent, while added spring rains have improved prospects in the South.

Of course, 1979's production is predicated on total acreage harvested for grain. Major grain-producing States—Minnesota and North Dakota—reduced plantings while South Dakota, Georgia, and Nebraska increased seedings. Low rye prices and high livestock prices are likely to lead to more rye acreage grazed in 1979, limiting the area harvested for grain.

Rye: Supply and disappearance

Item	June-March	
	1976/77	1977/78
	Million bushels	
June 1 stocks	4.4	4.1
Production	17.3	26.2
Imports	.1	.1
Total supply	21.8	30.4
Exports	(1)	(1)
Food	3.1	3.1
Seed	4.8	4.9
Industrial	1.5	1.8
Feed	6.3	8.0
Total disappearance	15.7	17.8
April 1 stocks	6.1	12.6

[1] Less than 50,000 bushels.

JAPANESE AND WESTERN EUROPEAN DEMAND FOR U.S. WHEAT

By P. Gallagher, M. Bredahl, and M. Lancaster

ABSTRACT: This is the second of two articles on the foreign market for U.S. wheat. The previous article contained a discussion of important trade policies and an analysis of demand in developing countries. This article contains an analysis of the demand in two major developed country markets: Japan and Western Europe.

KEYWORDS: U.S. wheat exports, developed countries, price and income elasticities.

Japan

The Japanese Food Agency, a government monopoly, fixes prices on the purchase and sales of wheat. Imported and domestically produced wheat is sold through the Agency at established prices. With the internal Japanese prices generally well above world levels, this results in a gain in government revenue on imported wheat. Japanese farmers' wheat prices are supported at a level above the world's, which tends to favor internal rice consumption over wheat consumption.

The Food Agency's influence on the country's internal supply and demand circumstances has been substantial.[1] The Agency's resale price of wheat (in real terms) has been steadily declining. Moreover, they discouraged domestic wheat production in the mid-sixties and early seventies by gradually reducing the nominal pegged farm level wheat purchase price (Wheat Associates, p. 108). Both of these factors tended to increase Japanese demand for imported wheat. The deflated resale price of wheat, Japanese wheat supplies, and U.S. exports to Japan are shown in the accompanying chart.

Since wheat is used mostly for human consumption in Japan, consumer demand theory provides the basis for specifying an import relation. Initial specifications included the controlled wholesale prices of wheat and rice, deflated by the Japanese consumer price index. An index of real per capita consumption expenditures was used as a measure for income. Population was taken into account by stating values in per capita terms.[2]

Four results emerged from a wide variety of preliminary regressions. The effects of rice prices either had the wrong sign or a low t-value. Additionally, all specifications showed a reasonable, significant, negative income response—a result that is in contrast to some previous research on Japanese wheat consumption.[3] Preliminary examination of data suggested that the 1971 West Coast dock strike had a substantial influence on wheat exports to Japan. Measures of dock strike length improved the $\bar{R}^2$ substantially without altering the significance and coefficient estimates for other explanatory variables. Also, preliminary analysis indicated that supplies in competing countries do not exert a statistically significant influence on Japanese imports of U.S. wheat.

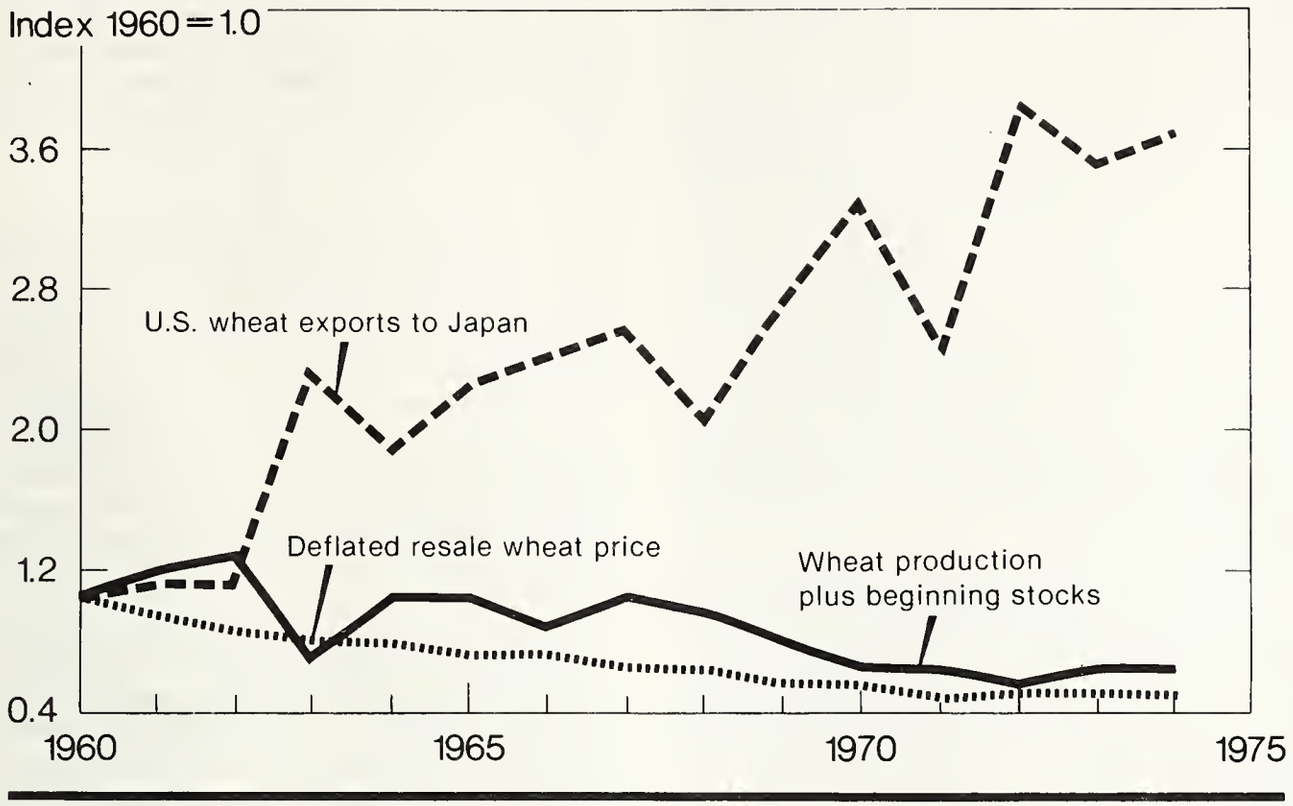
The relatively simple relationship between U.S. exports to Japan and (1) the wheat resale price,

[1]For a review of some recent developments in Japanese wheat and rice policies, see *Coyle*

[2]A recent study of Japanese wheat consumption employs a similar specification. Takayama, *et al*, report a per capita consumption equation which depends on the real resale prices of wheat and rice.

[3]Schmitz and Bawden (1971) give estimates of wheat food income elasticities for developed countries. Their estimates suggest that wheat is an inferior good in all developed countries except Japan. Takayama concluded that income is an insignificant explanatory variable. Another study of Japanese demand by Greenshields extended a preliminary report of the findings in this study. Utilizing Takayama's specification with a short time series (1960-74), the estimated income response was negative and significant. These results are not surprising in light of Japan's post-war economic growth.

Imports from the U.S., Production Plus Stocks and Deflated Resale Price, Japan, 1960/61-1974/75



USDA

Neg. ESCS 73-79 (5)

(2) own supply, (3) real income, and (4) dock strike variable was selected as the "best" (see table 1). U.S. exports to Japan are relatively responsive to the wheat resale price, with an own price elasticity near -1.0. The income variable is negative and marginally significant, indicating that wheat is likely an inferior good in Japan.

Table 1--Per capita Japanese import demand for U.S. wheat, 1960/61-1974/75

Independent variable	Estimated Coefficient	t-statistic	Elasticity at means
Constant	2.0751	3.75	---
Wheat resale price (deflated dollars per bu.)	-0.0018	-2.87	-0.97
Own wheat supply (bu. per capita)	-0.4703	-2.52	-0.43
Index of per capita real income (1970=1.0)	-23.5319	-0.77	-0.34
Dock strike variable	-0.0749	-3.88	---
$\bar{R}^2$ = .930 S.E.E. = .067			

Western Europe

For more than a decade, wide fluctuations in imports from the United States have characterized the West European wheat market. It is likely that policies of the dominant European Community (EC) have contributed to this instability. Wheat prices within the EC are insulated from world prices by means of a variable levy on imported wheat. A minimum import price (threshold price) is established for each marketing year. A levy in the amount of the difference between the threshold level and c.i.f. wheat prices is collected on imported wheat. The levy is adjusted daily to offset changes in the c.i.f. price. This practice assures that wheat does not enter the EC at less than the threshold price. Threshold price policies have achieved a basic EC objective: domestic production has been increasing and imports from outside the EC have simultaneously declined.

In fact, EC wheat production has expanded to the point where surplus disposal activities have been enacted. Farmers were subsidized for feeding wheat to livestock throughout the sixties and the early seventies. In addition, subsidies were granted for exporting wheat outside the EC. These latter

policies have made internal demands dependent on fluctuating government subsidy rates. And as a result of extensive wheat feeding, internal demands are also dependent on cycles in the feed-grain and livestock economies (Hauseman; Hudson; Friend).

Further complexity is added to the analysis by potential instability in the United States' share of the West European import market. There are, however, well defined periods of structural stability. The EC was established in 1962, but members were allowed to set threshold prices independently through 1966. Only after 1966 were all countries subject to uniform threshold levels. Thus, it is a reasonable hypothesis that coefficients in the share relation changed after 1966. It is also plausible that the United States' share of the West European market may have changed in 1972. Border compensation payments, which made intra-Common Market trade more profitable, were initiated at that time.

Attempts to directly estimate an equation for U.S. exports to Western Europe resulted in very limited success. Better results were obtained by estimating separate food and feed demand equations and a relationship for the U.S. share of this market. Implications for the U.S. exports were obtained by algebraic combination of these relationships.

Factors determining the feed demand for a grain are the price of the grain and substitute grain prices along with livestock population and prices of livesock (Womack). In the EC, wheat and corn are subject to the variable levy policy, so threshold prices for these commodities are the relevant variables. In this study, the wheat threshold price was adjusted by the subsidy rate for wheat feeding. In contrast to controlled wheat and corn prices, free trade in soybeans prevails throughout most of West Europe. Wheat feed demand should be influenced by world soybean meal prices because both commodities are sources of protein. Thus, U.S. soybean meal prices are also included as an explanatory variable. The animal unit and livestock price indices are constructed from country data for the original six countries of the EC and the United Kingdom. These countries account for over ninety percent of West European wheat feeding.

Results shown in table 2 confirm the significance of feed grain prices in explaining Western Europe's wheat feed demand. The estimated coefficients for wheat, corn, and soybean prices are all significant at high confidence levels and all have correct signs.

The evidence that wheat feeding depends on the livestock economy is less conclusive. In preliminary regressions, livestock prices were insignificant and entered with incorrect signs. When livestock prices were excluded, the animal units variable had the correct sign and a reasonable elasticity (near 1.0), but the t-value was very low. The likely explanation for this low t-value is the high intercorrelation (r=.967) between the animal units index and the corn threshold price.

In other studies, income and population were the principle determinants of wheat food demand for individual European countries (Schmitz and Bawden, p. 23). In table 3, wheat food consumption in Western Europe is related to an index of regional per capita consumer expenditures. These results indicate that wheat, with an income elasticity of -.233, is an inferior good in the region. An $\bar{R}^2$ of .876 indicates a relatively good fit for this simple relationship. Threshold prices of wheat were also used as an explanatory variable, but were found to have virtually no effect on food consumption of wheat.

Table 2—Wheat feed demand equation, Western Europe, 1962/63-1974/75

Variable	Estimated Coefficient	t-statistic	Elasticity at means
Constant	2.3848	0.29	---
Wheat threshold price* (U.A./m.t.)	-.1730	3.72	-1.43
Corn threshold price (U.A./m.t.)	.1334	1.22	1.04
Soymeal price (cents/lb.)	.4466	2.91	0.19
Animal units (Index 1972 = 1.0)	.1253	0.75	1.00
$\bar{R}^2$ = .864 S.E.E. = .929			

*Adjusted by the wheat denaturing premium.

Table 3—Per capita demand for wheat, Western Europe, 1962/63-1974/75

Variable	Coefficient	t-statistic	Elasticity at means
Per capita expenditure index (1970=1.0)	-1.1390	9.23	-0.233
Constant	0.1514	48.1	---

$\bar{R}^2$ = .876 S.E.E. = .002

A share equation for Western Europe was estimated using a relatively short historical period: 1966 to 1974. The first year of this period marks the beginning of a fully operating Common Market. In table 4, the estimated equation shows a strong relation between Western Europe's wheat

imports and U.S. exports to the region. The estimated coefficient for Z_{we} suggests that the initiation of border compensation payments in 1972 exerted a significant downward influence on U.S. exports to Western Europe.

Using the estimated marginal share relation along with the food and feed demand elasticities, weighted total elasticities for the region were computed (table 5). The first column in this table contains elasticities for wheat food and feed use, while the second column shows elasticities for the U.S. share of the West European wheat import market. These elasticities highlight the importance of several variables that are not normally associated with the Western Europe wheat trade. For example, a one-percent *increase* in the corn threshold price and soymeal price increases Western Europe imports of U.S. wheat by 2.2 and 0.4 percent, respectively. The threshold price for wheat, with an elasticity of -3.4, also has an important negative impact on Western European wheat imports of U.S. wheat.

Table 4--U.S. wheat exports to Western Europe, 1966/67-1974/75

Variable	Estimated coeffi-cient	t-statistic
Constant	-1.298	3.29
Western Europe commercial wheat imports (m.m.t.)[1]	0.487	9.98
EEC border compensation payments[2]	-1.673	9.89
$\bar{R}^2$ = .936 S.E.E. = 0.18		

[1] Net of intra-Western European trade. [2] Equals 0 before 1972, 1 afterwards.

Foreign Demand for U.S. Wheat—An Overview

This article, and the earlier one on LDC's, have reported factors which influence U.S. wheat exports in two different markets. The analysis of LDC demand emphasized the forces affecting consumer demand under the assumption of free trade and incorporated the influence of U.S. wheat export policies. Results suggested competition among major food grains (wheat, rice, and coarse grains) at the world levels and a positive response to LDC incomes. The measurement also indicated substitution between U.S. food aid exports and LDC commercial purchases. In contrast, demands in the developed countries are restricted by price-fixing policies in Japan and the EC. Other important influences were also measured for this smaller but more complicated segment of the export market; the depressing influence of income growth and the effect of West European wheat feeding were analyzed.

The relation between world wheat prices and LDC purchases from the United States suggests that adjustments in foreign consumption and purchases from the United States play a role in dampening the price fluctuation that accompanies changes in market conditions. However, such adjustments do not occur in Japan and Western Europe since prices are set by these governments. The wheat price elasticity for U.S. exports would be larger if free trade prevailed in Japan and Western Europe, perhaps twice the elasticity under existing policies.

The results also carry implications for the longer run outlook. In particular, income growth in foreign countries tends to alter the composition of foreign wheat sales. Rising incomes in LDC's tend to expand wheat purchases from the United States while income growth in Japan and Western Europe reduces wheat demand and purchases from the United States. However, equal percentage income growth in importing areas would probably expand U.S. wheat exports—the income elasticity is large and positive in LDC's but small and negative in Japan and Western Europe.

Table 5—Internal and import elasticities for wheat, Western Europe

Variable	Internal Elasticity	Elasticity of Western European Demand for U.S. wheat
Population	1.000	6.848
Income	-0.233	-1.596
Wheat threshold price	-1.594	-3.396
Corn threshold price	1.038	2.212
Animal units	0.996	1.598
Soymeal price	0.187	0.398

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TABLE 2.--WHEAT: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1974-79 *

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE						ENDING STOCKS		
					DOMESTIC USE								
	BEGINNING STOCKS	PRODUCTION	IMPORTS 1/	TOTAL	FOOD 2/	ALC. BEVERAGES	SEED	FEED 3/	TOTAL	EXPORTS 1/	TOTAL DISAPPEARANCE	GOVT. OWNED 4/	PRIVATELY OWNED 5/	TOTAL
	MILLION BUSHELS													
1974/75														
JUNE-SEPT.	340.1	1,781.9	2.2	2,124.1	178.0	6/	34.0	19.6	231.6	330.4	562.0	---	1,562.1	1,562.1
OCT.-DEC.	1,562.1	---	0.6	1,562.7	144.5	6/	32.0	-4.3	172.2	283.0	455.2	---	1,107.5	1,107.5
JAN.-MAR.	1,107.5	---	0.4	1,107.9	129.4	6/	0.6	60.5	190.5	255.3	445.8	---	662.1	662.1
APR.-MAY	662.1	---	0.2	662.3	93.1	6/	25.4	-40.9	77.5	149.8	227.3	---	435.0	435.0
MKT. YEAR	340.1	1,781.9	3.4	2,125.3	545.0	6/	92.0	34.9	671.9	1,018.5	1,690.4	---	435.0	435.0
1975/76														
JUNE-SEPT.	435.0	2,122.5	0.7	2,558.1	195.6	6/	33.0	16.6	245.2	428.4	673.6	---	1,884.5	1,884.5
OCT.-DEC.	1,884.5	---	0.7	1,885.3	150.4	6/	35.0	-29.3	156.1	343.6	499.6	---	1,385.7	1,385.7
JAN.-MAR.	1,385.7	---	0.3	1,386.0	148.5	6/	1.0	52.4	201.9	247.3	449.2	---	936.8	936.8
APR.-MAY	936.8	---	0.6	937.4	94.2	6/	30.0	-5.7	118.5	153.7	272.1	---	665.3	665.3
MKT. YEAR	435.0	2,122.5	2.4	2,559.8	588.6	0.1	99.0	34.0	721.7	1,172.9	1,894.6	---	665.3	665.3
1976/77														
JUNE-SEPT.	665.3	2,142.4	0.9	2,808.5	200.4	6/	32.0	-11.0	221.5	398.8	620.3	---	2,188.2	2,188.2
OCT.-DEC.	2,188.2	---	0.4	2,188.6	152.5	6/	34.0	6/	186.6	220.3	406.8	---	1,781.8	1,781.8
JAN.-MAR.	1,781.8	---	0.4	1,782.1	147.3	6/	1.0	65.5	213.8	178.8	392.6	---	1,389.5	1,389.5
APR.-MAY	1,389.5	---	1.1	1,390.6	87.9	6/	25.0	13.9	126.7	151.6	278.4	---	1,112.2	1,112.2
MKT. YEAR	665.3	2,142.4	2.7	2,810.3	588.0	0.1	92.0	68.4	748.6	949.5	1,698.1	---	1,112.2	1,112.2
1977/78														
JUNE-SEPT.	1,112.2	2,036.3	0.8	3,149.4	193.3	6/	32.0	142.0	367.3	381.7	749.0	8.2	2,392.2	2,400.4
OCT.-DEC.	2,400.4	---	0.4	2,400.7	153.5	6/	23.0	5.1	181.6	225.4	407.0	31.8	1,962.0	1,993.8
JAN.-MAR.	1,993.8	---	0.4	1,994.2	145.5	6/	1.0	41.4	187.9	278.6	466.5	44.8	1,482.9	1,527.7
APR.-MAY	1,527.7	---	0.3	1,528.0	94.2	6/	24.0	-5.2	113.1	238.2	351.3	45.7	1,131.0	1,176.7
MKT. YEAR	1,112.2	2,036.3	1.9	3,150.5	586.5	0.1	80.0	183.3	849.9	1,123.9	1,973.8	45.7	1,131.0	1,176.7
1978/79 7/														
JUNE-SEPT.	1,176.7	1,798.7	0.5	2,976.0	191.7	6/	27.0	127.0	345.6	493.3	839.0	48.9	2,088.1	2,137.0
OCT.-DEC.	2,137.0	---	0.5	2,137.5	153.7	6/	34.0	9.2	196.9	308.8	505.7	49.5	1,582.3	1,631.8
JAN.-MAR.	1,631.8	---	0.5	1,632.3	147.2	6/	1.0	35.4	183.6	224.5	408.1	49.5	1,174.7	1,224.2
APR.-MAY														
MKT. YEAR														

1/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS EXPRESSED IN WHEAT EQUIVALENT. 2/ USED FOR FOOD IN THE UNITED STATES, U.S. TERRITORIES, AND BY THE MILITARY. 3/ RESIDUAL; APPROXIMATES FEED USE. 4/ UNCOMMITTED, GOVERNMENT ONLY. 5/ INCLUDES TOTAL LOANS. 6/ LESS THAN 50,000 BUSHELS. 7/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

TABLE 3.--WHEAT CLASSES: MARKETING YEAR SUPPLY AND DISAPPEARANCE, 1975-78 1/

YEAR BEGINNING JUNE 1	SUPPLY			DISAPPEARANCE			ENDING STOCKS MAY 31
	BEGINNING STOCKS	PRODUCTION	TOTAL 2/	DOMESTIC USE	EXPORTS 3/	TOTAL	
	MILLION BUSHELS						
1975/76							
HARD WINTER	225	1,058	1,283	323	581	904	379
RED WINTER	37	326	363	141	165	306	57
HARD SPRING	104	327	432	156	160	316	116
DURUM	26	123	150	45	52	97	53
WHITE	43	288	331	56	215	271	60
ALL CLASSES	435	2,122	2,559	721	1,173	1,894	665
1976/77							
HARD WINTER	379	976	1,355	332	418	750	605
RED WINTER	57	336	393	140	181	321	72
HARD SPRING	116	411	528	154	124	278	250
DURUM	53	135	190	57	41	98	92
WHITE	60	284	344	65	186	251	93
ALL CLASSES	665	2,142	2,810	748	950	1,698	1,112
1977/78 4/							
HARD WINTER	605	992	1,597	431	535	966	631
RED WINTER	72	350	422	154	197	351	71
HARD SPRING	250	398	649	158	156	314	335
DURUM	92	80	173	44	62	106	67
WHITE	93	216	309	62	174	236	73
ALL CLASSES	1,112	2,036	3,150	849	1,124	1,973	1,177
1978/79 5/							
HARD WINTER	631	834	1,465	426	625	1,051	414
RED WINTER	71	202	273	143	95	238	35
HARD SPRING	335	380	715	162	228	390	325
DURUM	67	133	201	47	72	119	82
WHITE	73	250	324	74	180	254	70
ALL CLASSES	1,177	1,799	2,978	852	1,200	2,052	926

1/ DATA, EXCEPT PRODUCTION, ARE APPROXIMATIONS. 2/ TOTAL SUPPLY INCLUDES IMPORTS. 3/ IMPORTS AND EXPORTS INCLUDE FLOUR AND OTHER PRODUCTS IN WHEAT EQUIVALENT. 4/ PRELIMINARY. 5/ PROJECTED.

Table 4.--Wheat: Cash prices for leading classes at major markets, 1977-79 1/

Major market and Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per bushel - - - -												
No. 1 HRW, Kansas City													
Ordinary protein													
1977/78	2.31	2.35	2.31	2.47	2.56	2.81	2.80	2.82	2.84	3.07	3.21	3.12	2.72
1978/79	3.12	3.14	3.14	3.24	3.42	3.48	3.39	3.42	3.50	3.52	3.53		
13% protein													
1977/78	2.51	2.43	2.38	2.53	2.61	2.86	2.87	2.92	2.89	3.09	3.36	3.25	2.81
1978/79	3.20	3.17	3.15	3.26	3.42	3.48	3.40	3.43	3.52	3.55	3.58		
No. 2 SRW, Chicago													
1977/78	2.29	2.20	2.08	2.20	2.27	2.59	2.65	2.69	2.64	2.82	3.11	3.14	2.56
1978/79	3.18	3.22	3.32	3.42	3.51	3.68	3.68	3.73	3.88	3.79	3.60		
No. 2 SRW, St. Louis													
1977/78	2.15	2.14	1.97	2.01	2.28	2.70	2.74	2.75	2.71	2.90	3.09	2.99	2.54
1978/79	3.05	3.16	3.21	3.23	3.41	3.57	3.50	3.57	3.66	3.51	3.62		
No. 2 SRW, Toledo													
1977/78	2.21	2.13	2.03	2.08	2.21	2.53	2.57	2.62	2.55	2.77	3.07	3.03	2.48
1978/79	3.09	3.13	3.21	3.32	3.46	3.73	3.72	3.73	3.69	3.66	3.56		
No. 2 SW, Toledo													
1977/78	2.21	2.16	2.04	2.06	2.18	2.52	2.56	2.62	2.56	2.77	3.07	3.03	2.48
1978/79	3.10	3.26	3.45	3.63	3.69	3.87	3.77	3.72	3.63	3.44	3.35		
No. 1 SW, Portland													
1977/78	2.79	2.88	2.88	2.80	2.75	2.91	2.97	3.17	3.33	3.41	3.62	3.60	3.09
1978/79	3.60	3.74	3.72	3.77	3.76	3.76	3.71	3.70	3.65	3.70	3.70		
No. 1 DK. NS, Minneapolis													
Ordinary protein													
1977/78	2.43	2.29	2.22	2.51	2.61	2.71	2.68	2.73	2.72	2.86	3.08	3.10	2.66
1978/79	3.06	2.95	2.96	3.07	3.21	3.32	3.15	3.12	3.12	3.18	3.29		
14% protein													
1977/78	2.65	2.54	2.48	2.75	2.87	2.96	2.92	2.94	2.90	3.03	3.23	3.27	2.88
1978/79	3.21	3.11	3.13	3.26	3.41	3.47	3.32	3.30	3.36	3.42	3.45		
Hard amber durum, Mpls. (med.)													
1977/78	2.84	2.84	2.80	3.12	3.42	3.54	3.51	3.62	3.61	3.60	3.72	3.79	3.37
1978/79	3.72	3.56	3.55	3.52	3.69	3.70	3.53	3.60	3.64	3.72	3.63		

1/ On-track prices established at the close of the market.

Table 5.--Wheat: Farm price, loan rate per bushel and price for equivalent quantity of major feed grain in region, 1977-79 1/

Item	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average	Support rate
	- - - - Price for 60 pounds (bushel weight of wheat) - - - -													
Central and So. Plains (Hd. winter) 2/														
Wheat 1977/78	1.94	1.98	1.94	2.06	2.19	2.37	2.38	2.37	2.44	2.55	2.69	2.69	2.30	2.19
Sorghum 1977/78	1.82	1.75	1.59	1.60	1.74	1.87	1.86	1.87	1.91	2.02	2.16	2.21	1.87	1.79
Wheat 1978/79	2.72	2.71	2.74	2.82	2.96	2.98	2.97	2.93	2.96	2.97				2.28
Sorghum 1978/79	2.15	2.05	1.97	1.96	2.06	2.11	2.12	2.11	2.11	2.12				2.00
Cornbelt (Soft red winter) 4/														
Wheat 1977/78	1.99	1.97	1.88	1.88	2.01	2.35	2.45	2.45	2.48	2.64	2.88	2.89	2.32	2.26
Corn 1977/78	2.30	2.01	1.74	1.70	1.80	2.07	2.16	2.17	2.21	2.33	2.47	2.50	2.12	1.93
Wheat 1978/79	2.88	2.90	3.02	3.08	3.23	3.34	3.37	3.37	3.50	3.38				2.34
Corn 1978/79	2.52	2.39	2.18	2.13	2.12	2.19	2.27	2.31	2.39	2.44				2.18
East and South (Soft red winter) 5/														
Wheat 1977/78	1.95	1.91	1.68	2.00	---	2.30	2.23	---	---	---	---	---	1.95	2.22
Corn 1977/78	2.58	2.20	1.85	1.84	1.95	2.29	2.41	2.34	2.44	2.58	2.69	2.87	2.33	2.03
Wheat 1978/79	2.72	3.03	3.11	---	3.09	3.18	---	---	---	3.01				2.28
Corn 1978/79	2.84	2.58	2.38	2.32	2.42	2.51	2.61	2.69	2.71	2.77				2.29
Northern Plains (Spring and durum) 6/														
Wheat 1977/78	2.25	2.16	2.16	2.28	2.45	2.59	2.56	2.60	2.62	2.66	2.81	2.84	2.50	2.26
Barley 1977/78	2.10	1.71	1.70	1.71	1.91	2.11	2.14	2.15	2.19	2.21	2.34	2.39	2.05	1.74
Wheat 1978/79	2.79	2.69	2.71	2.78	2.87	2.93	2.86	2.75	2.83	2.84				2.36
Barley 1978/79	2.25	2.00	2.02	2.14	2.22	2.36	2.33	2.27	2.26	2.34				1.92
Pacific Northwest (White) 7/														
Wheat 1977/78	2.47	2.52	2.55	2.45	2.40	2.58	2.62	2.69	2.92	3.07	3.17	3.22	2.72	2.31
Barley 1977/78	2.47	2.44	2.25	2.32	2.10	2.31	2.30	2.36	2.47	2.56	2.64	2.71	2.41	1.99
Wheat 1978/79	3.23	3.29	3.35	3.36	3.30	3.30	3.34	3.30	3.21	3.22				2.41
Barley 1978/79	2.69	2.59	2.54	2.35	2.25	2.32	2.31	2.39	2.36	2.44				2.15
U.S. Average														
Wheat 1977/78	2.03	2.04	2.13	2.16	2.30	2.46	2.47	2.53	2.59	2.67	2.82	2.82	8/2.33	2.25
Wheat 1978/79	2.81	2.81	2.88	2.92	2.99	3.04	3.01	2.99	2.99	2.97			8/2.94	2.35

1/ Simple averages with no adjustment made for relative feed value. Relative feeding value: Corn 1.00; wheat 1.05; barley .90; sorghum .95; reported in Consumption of Feed by Livestock, Production Research Report No. 79, ERS, USDA. 2/ Kansas, Nebraska, Texas, Oklahoma, and Colorado. 3/ Preliminary. 4/ Ohio, Indiana, Illinois, and Missouri. 5/ Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Mississippi, Alabama, Louisiana, and Arkansas. 6/ North Dakota, South Dakota, and Minnesota. 7/ Washington, Oregon, and Idaho. 8/ Season average price including allowance for unredeemed loans and purchases by CCC.

Table 6.--Wheat and flour: Price relationships at milling centers annual and by periods, 1975-79

Year and periods	At Kansas City					At Minneapolis				
	Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-				Cost of wheat to produce 100 lb. of flour 1/	Wholesale price of-			
		Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products			Bakery flour per 100 lb. 2/	Byprod-ucts obtained 100 lb. flour 3/	Total products	
				Actual	Over cost of wheat				Actual	Over cost of wheat
	- - - - Dollars - - - -									
1975/76										
June-Sept.	9.64	9.15	1.48	10.63	.99	10.37	10.38	1.45	11.83	1.46
Oct.-Dec.	9.55	9.58	1.67	11.25	1.70	10.12	10.66	1.56	12.22	2.10
Jan.-Mar.	9.49	9.29	1.56	10.85	1.36	9.97	10.36	1.47	11.83	1.86
Apr.-May	9.03	8.88	1.53	10.41	1.38	9.68	10.16	1.54	11.70	2.02
Season average	9.43	9.23	1.56	10.79	1.36	10.04	10.39	1.51	11.90	1.86
1976/77										
June-Sept.	8.47	8.31	1.70	10.01	1.54	8.98	9.64	1.74	11.38	2.40
Oct.-Dec.	6.92	7.05	1.71	8.76	1.84	7.16	8.04	1.72	9.76	2.60
Jan.-Mar.	6.75	6.70	1.63	8.33	1.58	7.02	7.78	1.66	9.44	2.42
Apr.-May	6.12	6.02	1.62	7.64	1.52	6.66	7.02	1.66	8.68	2.02
Season average	7.06	7.02	1.66	8.68	1.62	7.46	8.12	1.70	9.82	2.36
1977/78										
June-Sept.	5.61	5.86	1.19	7.05	1.44	5.97	6.70	1.23	7.93	1.96
Oct.-Dec.	6.34	6.46	1.33	7.79	1.45	6.69	7.24	1.23	8.47	1.78
Jan.-Mar.	6.77	6.88	1.37	8.25	1.48	6.82	7.52	1.25	8.77	1.95
Apr.-May	7.54	7.86	1.14	9.00	1.46	7.45	8.52	1.08	9.60	2.15
Season average	6.56	6.76	1.26	8.02	1.46	6.73	7.49	1.20	8.69	1.96
1978/79										
June-Sept.	7.29	7.49	1.27	8.76	1.47	7.27	8.03	1.16	9.19	1.92
Oct.-Dec.	7.83	7.77	1.67	9.44	1.61	7.78	8.15	1.48	9.63	1.85
Jan.-Mar. 4/	7.98	7.84	1.61	9.45	1.47	7.74	8.05	1.44	9.49	1.75
Apr.-May										
Season average										

1/ Based on 73 percent extraction rate, cost of 2.28 bushels: At Kansas City, NO. 1 Hard Winter, 13 percent protein, and at Minneapolis, NO. 1 Dark Northern Spring, simple average of 13 percent and 15 percent protein. 2/ Quoted as 95 percent patent at Kansas City and standard patent at Minneapolis, bulk basis. 3/ Assumed 50-50 millfeed distribution between bran and shorts or middlings, bulk basis. 4/ Preliminary.

Compiled from reports of Agricultural Marketing Service and Bureau of Labor Statistics, Department of Labor.

Table 7.--Cereal and bakery products: Retail price index, 1967-79

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
	(Index 1967 = 100)												
1967	99.8	99.7	99.9	99.9	99.7	99.9	99.9	99.8	99.7	99.7	99.8	99.9	99.8
1968	100.1	100.6	100.9	101.1	101.1	101.4	101.4	101.7	101.9	102.3	102.4	102.6	101.5
1969	103.0	103.5	103.5	103.8	104.4	104.7	105.4	105.9	106.6	107.2	107.7	108.0	105.3
1970	108.2	108.7	109.8	110.2	111.0	111.2	111.6	112.4	112.8	113.0	113.9	114.1	111.4
1971	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.7	114.3	114.8	115.0	114.7	114.4
1972	114.5	114.4	114.4	114.6	114.6	115.0	115.8	116.3	117.8	119.0	120.2	122.1	116.6
1973	123.0	123.5	124.7	132.4	139.0	145.8	148.5	149.7	154.4	158.6	161.4	164.3	143.8
1974	165.3	166.7	168.2	170.4	174.7	177.6	181.7	185.3	187.3	189.1	188.9	187.0	178.5
1975	185.2	184.6	182.6	181.6	181.6	181.9	182.2	182.0	181.1	180.6	180.2	180.8	182.0
1976	181.3	180.9	180.3	180.4	180.1	179.9	179.3	179.9	180.0	181.3	182.6	182.5	180.7
1977	182.8	183.3	182.7	184.9	185.4	187.1	189.0	190.8	194.5	194.4	194.8	198.2	189.0
1978	199.4	201.3	203.1	203.8	205.1	206.6	207.9	210.0	212.2	213.5			

Bureau of Labor Statistics, U.S. Department of Labor.

Table 8.--Wheat: Monthly average export prices at selected ports, 1975-79

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Cents per bushel - - - -												
	GULF PORTS: NO. 1 HARD RED WINTER, ORDINARY PROTEIN												
1975/76	346	395	443	450	439	400	388	391	416	415	396	386	405
1976/77	398	387	345	327	303	290	288	296	301	291	278	259	314
1977/78	253	263	260	272	283	304	312	311	315	337	355	337	300
1978/79	344	346	347	356	374	375	370	375	381	382	381		
	EAST COAST NO. 1 SOFT RED WINTER												
1975/76	319	358	405	412	392	354	328	365	391	389	1/	1/	371
1976/77	1/	350	319	312	284	274	278	285	291	278	271	258	291
1977/78	---	229	222	231	246	282	289	294	294	315	340	338	280
1978/79	337	337	344	353	369	382	1/	1/	1/	1/	1/		
	PORTLAND: NO. 2 WESTERN WHITE												
1975/76	343	382	442	448	430	389	383	387	408	396	375	361	395
1976/77	362	364	342	331	306	299	284	294	305	298	302	299	316
1977/78	286	292	295	285	282	296	305	320	338	347	369	365	315
1978/79	369	385	379	384	382	384	377	378	373	376	376		
	DULUTH: NO. 2 NORTHERN SPRING, 14% PROTEIN												
1975/76	426	456	489	493	477	434	435	422	444	438	422	425	447
1976/77	442	423	374	344	326	312	303	305	310	303	302	286	336
1977/78	267	255	254	279	290	297	290	292	289	299	321	327	288
1978/79	324	316	319	328	346	350	328	330	336	342	346		

1/ No price quotes available.

Source: Grain Market News.

Table 9.--Wheat, flour and wheat products, United States exports by months, 1973-79*

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
	- - - - 1,000 bushels - - - -												
	Wheat (Grain only)												
1973/74	125,910	110,095	139,912	132,527	122,270	120,508	89,469	83,185	72,848	65,678	55,802	55,119	1,173,323
1974/75	57,188	82,885	91,984	86,187	91,682	98,332	82,568	108,443	71,904	65,191	77,129	65,345	978,838
1975/76	77,583	99,988	111,446	125,943	123,762	118,614	92,462	92,069	72,517	77,353	77,111	67,787	1,136,635
1976/77	66,814	85,619	113,202	110,376	100,532	54,296	57,024	49,447	57,773	52,650	70,233	66,501	884,467
1977/78	77,073	83,657	93,432	110,634	69,107	57,565	87,368	64,819	94,669	105,468	103,286	120,060	1,067,138
1978/79	108,931	106,108	131,921	119,611	115,518	92,392	90,027	70,400	67,105	75,548			
	Flour (Grain equivalent) 1/												
1973/74	2,875	3,613	3,861	4,737	1,498	1,504	2,650	2,925	2,736	2,624	3,067	3,475	35,565
1974/75	3,464	1,979	2,689	1,836	2,232	2,973	3,017	2,817	2,090	1,807	1,589	3,842	30,335
1975/76	2,664	2,627	2,740	2,045	2,113	2,019	1,380	1,149	1,206	1,525	3,212	4,306	26,986
1976/77	5,605	3,052	5,060	6,028	2,861	1,357	988	3,204	5,871	6,522	8,433	4,893	53,874
1977/78	3,803	3,586	3,411	2,893	2,011	2,204	3,446	1,987	3,820	4,464	6,412	5,844	43,881
1978/79	6,426	4,370	5,124	5,109	4,235	1,399	1,617	1,380	3,050	3,355			
	Wheat products (Grain equivalent) 2/												
1973/74	812	372	489	610	426	771	1,379	763	470	487	871	620	8,070
1974/75	354	522	551	751	373	820	1,036	972	1,141	902	904	1,002	9,328
1975/76	1,540	1,275	212	340	955	856	1,395	1,223	89	140	481	754	9,260
1976/77	450	869	1,293	444	1,072	329	1,798	1,426	1,398	540	728	844	11,191
1977/78	788	926	269	1,211	925	952	1,821	1,097	1,164	1,059	942	1,694	12,848
1978/79	1,232	816	1,842	1,829	605	1,480	1,575	1,414	1,457	774			
	Total wheat, flour and products												
1973/74	129,597	114,080	144,262	137,874	124,194	122,783	93,498	86,873	76,054	68,789	59,740	59,214	1,216,958
1974/75	61,006	85,386	95,224	88,774	94,287	102,125	86,621	112,232	75,135	67,900	79,622	70,189	1,018,501
1975/76	81,787	103,890	114,398	128,328	126,830	121,489	95,237	94,441	73,812	79,018	80,804	72,847	1,172,881
1976/77	72,869	89,540	119,555	116,848	104,465	55,982	59,810	54,077	65,042	59,712	79,394	72,238	949,532
1977/78	81,663	88,169	97,113	114,738	72,043	60,722	92,635	67,903	99,653	110,991	110,639	127,598	1,123,867
1978/79	116,588	111,294	138,888	126,550	120,358	95,271	93,219	73,194	71,612	79,677			

1/ Includes meal and groats and durum.
2/ Includes macaroni, rolled wheat and bulgar.

*Totals may not add due to independent rounding.

SOURCE: Bureau of the Census.

Table 10.--Wheat: Rotterdam, c.i.f., quotations for cargoes/parcels in nearest shipment position, by months, 1973-79 1/

Year beginning	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
	- - - - Dollars per metric ton - - - -												
	Canadian No. 1 CWRS - 13.5												
1973	132	167	202	228	222	205	222	239	244	240	214	185	208
1974	204	216	216	213	234	237	232	209	198	182	192	193	210
1975	195	205	210	228	219	222	2/185	2/187	2/195	2/174	2/166	2/169	196
1976	2/188	2/175	158	156	145	141	139	145	146	135	133	134	150
1977	127	122	117	129	137	144	145	153	155	2/148	2/154	2/159	141
1978	2/157	161	163	166	170	177	NQ	NQ	172	164	159		
	United States No. 2 Hard Winter, 13.5%												
1973	121	144	203	212	206	200	223	230	232	224	183	170	196
1974	177	191	194	204	230	229	219	195	180	176	159	146	192
1975	146	174	188	195	185	173	166	168	181	183	176	169	175
1976	172	176	159	150	139	131	132	133	140	132	130	121	143
1977	114	116	116	120	126	135	137	134	132	139	151	142	130
1978	150	146	147	148	156	161	157	155	160	165	155		
	United States Dark Northern Spring, 14%												
1973	132	146	193	201	194	198	224	240	240	228	182	180	196
1974	209	214	217	214	233	233	228	204	192	179	182	181	207
1975	175	185	196	202	193	182	187	183	193	194	174	178	187
1976	181	176	158	148	138	137	142	145	148	134	130	127	147
1977	115	111	110	121	126	131	132	144	147	147	147	145	131
1978	142	138	140	144	153	159	150	164	170	164	151		

1/ Hamburg Mercantile Exchange prices for Rotterdam. Averages: Basis daily market quotes. 30 days delivery.

2/ Canadian Western Spring Wheat (CWRS)--No. 2--12.5 protein.

NQ - Not quoted.

Compiled from Foreign Agriculture Grain Circular, Foreign Agriculture Service.

Table 11.--Wheat and Wheat Flour: World trade, production, stocks and utilization for 1976/77, 1977/78, 1978/79, and projected levels for 1979/80, years beginning July 1

Country or region	1976/77	1977/78	1978/79	1979/80 projected 1/	
				Alt. I	Alt. II
	Million metric tons				
Exports:					
Canada	12.9	15.9	14.4	14	16
Australia	8.5	11.1	6.6	9	11
Argentina	5.6	2.6	3.4	3	2
Sub-total	27.0	29.5	24.4	27	29
W. Europe	6.3	7.1	9.4	10	8
USSR	1.0	1.0	1.5	2	1
All Others	2.8	4.2	5.0	5	4
Total non-U.S.	37.1	41.8	40.2	41	44
USA 2/	25.8	31.1	31.5	29	35
World total	62.8	72.9	71.7	69	79
Imports:					
W. Europe	5.6	7.6	6.7	6	7
USSR	4.6	6.9	5.0	4	8
Japan	5.5	5.8	5.5	6	5
E. Europe	6.3	4.7	4.0	5	6
China	3.1	8.6	9.0	7	11
All Others	37.7	39.2	41.5	39	43
World total	62.8	72.9	71.7	69	79
(World total including intra EC-9)	68.2	79.1	77.2	74	84
Production: 3/					
Canada	23.6	19.9	21.1	23	19
Australia	11.7	9.3	18.0	15	11
Argentina	11.0	5.3	8.1	9	6
W. Europe	50.7	47.6	58.0	56	48
USSR 4/	96.9	92.2	120.8	110	85
E. Europe	34.7	34.2	35.9	36	33
India	28.8	29.0	31.3	33	32
All other foreign	99.5	88.9	94.7	102	92
Total foreign	356.8	326.4	388.1	377	341
USA	58.3	55.4	49.0	56	47
World total	415.1	381.8	437.0	429	395
Utilization: 5/					
USA	20.4	23.1	23.6	25	22
USSR 4/	92.5	107.1	107.6	110	105
China	48.1	49.1	53.0	55	52
All other foreign	218.7	216.3	232.2	236	231
World total	379.7	395.6	416.4	431	411
Stocks, ending: 6/	98.4	84.6	105.2	104	90

1/ Alternative I assumes relatively favorable worldwide crop conditions; Alternative II assumes relatively unfavorable worldwide crop conditions. 2/ Includes transshipments through Canadian ports; excludes products other than flour. 3/ Production data include all harvests occurring within the July-June year shown, except that small grain crops from the early harvesting Northern Hemisphere areas are "moved forward"; i.e., the May 1978 harvests in areas such as India, North Africa, and southern United States are actually included in "1978/79" accounting period which begins July 1, 1978. 4/ "Bunker weight" basis: not discounted for excess moisture and foreign material. 5/ Utilization data are based on an aggregate of differing local marketing years. For countries for which stocks data are not available, (excluding the USSR) utilization estimates represent "apparent" utilization, i.e., they are inclusive of annual stock level adjustments. 6/ Stocks data are based on an aggregate of differing local marketing years and should not be construed as representing world stock levels at a fixed point in time. Stocks data are not available for all countries and exclude those such as China and parts of Eastern Europe; the world stock levels have been adjusted for estimated year-to-year changes in USSR grain stocks, but do not purport to include the entire absolute level of USSR stocks.

SOURCE: Foreign Agricultural Service. World Grain Situation: Outlook for 1979/80.

TABLE 12.--RYE: MARKETING YEAR SUPPLY, DISAPPEARANCE, AREA AND PRICES, 1975-79 *

YEAR BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS MAY 31		
					DOMESTIC USE									
	BEGINNING STOCKS	PRODUCTION	IMPORTS	TOTAL	FOOD	ALC. BEVERAGES	SEED	FEED 1/	TOTAL	EXPORTS	TOTAL DISAPPEARANCE	GOVT. OWNED 2/	PRIVATELY OWNED 3/	TOTAL
	MILLION BUSHELS													
1975/76	6.6	16.0	0.9	23.5	4.2	2.1	4.2	7.6	18.0	1.1	19.1	---	4.4	4.4
1976/77	4.4	15.0	0.2	19.6	3.7	1.9	4.2	5.3	15.1	4/	15.2	---	4.4	4.4
1977/78	4.4	17.3	0.1	21.9	3.6	1.9	4.8	7.4	17.7	4/	17.7	---	4.1	4.1
1978/79 5/	4.1	26.2	0.1	30.4	3.7	2.0	4.9	8.5	19.1	4/	19.1	---	---	11.3

	AREA		YIELD	AVERAGE PRICES		
	PLANTED	HARVESTED FOR GRAIN	PER HARVESTED ACRE	RECEIVED BY FARMERS	MINNEAPOLIS, NO. 2	NATIONAL AVG. LOAN RATE
	MILLION ACRES		BUSHELS	DOLLARS PER BUSHEL		
1975/76	2.8	0.7	21.9	2.36	2.84	0.89
1976/77	2.7	0.7	20.7	2.47	2.87	1.20
1977/78 5/	2.7	0.7	24.6	2.05	2.53	1.70
1978/79 6/	3.0	1.0	26.3	1.98		1.70
1979/80	3.1					

1/ RESIDUAL: ROUGHLY APPROXIMATES TOTAL FEED USE. 2/ UNCOMMITTED, GOVERNMENT ONLY. 3/ INCLUDES TOTAL LOANS. 4/ LESS THAN 50,000 BUSHELS. 5/ PRELIMINARY. 6/ PROJECTED. *TOTALS MAY NOT ADD DUE TO ROUNDING.

TABLE 13. --RYE: MARKETING YEAR SUPPLY AND DISAPPEARANCE, SPECIFIED PERIODS, 1974-79 *

YEAR AND PERIODS BEGINNING JUNE 1	SUPPLY				DISAPPEARANCE							ENDING STOCKS		
					DOMESTIC USE									
	BEGINNING STOCKS	PRODUCTION	IMPORTS	TOTAL	FOOD	ALC. BEVERAGES	SEED	FEED 1/	TOTAL	EXPORTS	TOTAL DISAPPEARANCE	GOVT. OWNED 2/	PRIVATELY OWNED 3/	TOTAL
	MILLION BUSHELS													
1974/75														
JUNE-SEPT.	14.2	17.5	4/	31.7	1.9	0.4	2.1	3.3	7.6	4.2	11.9	---	19.8	19.8
OCT.-DEC.	19.8	---	4/	19.8	1.4	0.4	1.9	2.3	6.0	2.2	8.2	---	11.6	11.6
JAN.-MAR.	11.6	---	---	11.6	1.3	0.3	0.2	1.8	3.6	4/	3.7	---	7.9	7.9
APR.-MAY	7.9	---	0.3	8.2	0.8	0.3	---	0.4	1.5	4/	1.6	---	6.6	6.6
MKT. YEAR	14.2	17.5	0.3	32.0	5.5	1.4	4.2	7.8	18.9	6.5	25.3	---	6.6	6.6
1975/76														
JUNE-SEPT.	6.6	16.0	0.2	22.8	1.4	0.4	2.1	3.5	7.5	0.7	8.2	---	14.7	14.7
OCT.-DEC.	14.7	---	0.2	14.9	1.1	0.7	1.9	1.8	5.5	0.3	5.8	---	9.1	9.1
JAN.-MAR.	9.1	---	4/	9.1	1.1	0.5	0.2	1.6	3.3	4/	3.3	---	5.8	5.8
APR.-MAY	5.8	---	0.5	6.2	0.6	0.5	---	0.7	1.7	0.1	1.8	---	4.4	4.4
MKT. YEAR	6.6	16.0	0.9	23.5	4.2	2.1	4.2	7.6	18.0	1.1	19.1	---	4.4	4.4
1976/77														
JUNE-SEPT.	4.4	15.0	0.2	19.6	1.2	0.5	2.1	1.7	5.5	4/	5.5	---	14.1	14.1
OCT.-DEC.	14.1	---	4/	14.1	1.0	0.5	1.9	1.8	5.2	4/	5.2	---	8.9	8.9
JAN.-MAR.	8.9	---	4/	8.9	0.9	0.6	0.2	1.0	2.7	4/	2.7	---	6.2	6.2
APR.-MAY	6.2	---	---	6.2	0.6	0.4	---	0.8	1.8	4/	1.8	---	4.4	4.4
MKT. YEAR	4.4	15.0	0.2	19.6	3.7	1.9	4.2	5.3	15.1	4/	15.2	---	4.4	4.4
1977/78														
JUNE-SEPT.	4.4	17.3	0.1	21.8	1.2	0.6	2.4	2.9	7.1	4/	7.1	---	14.8	14.8
OCT.-DEC.	14.8	---	---	14.8	1.0	0.5	2.2	1.8	5.5	4/	5.5	---	9.3	9.3
JAN.-MAR.	9.3	---	---	9.3	0.9	0.5	0.2	1.6	3.2	4/	3.2	---	6.1	6.1
APR.-MAY	6.1	---	4/	6.1	0.6	0.3	---	1.1	2.0	4/	2.0	---	4.1	4.1
MKT. YEAR	4.4	17.3	0.1	21.9	3.6	1.9	4.8	7.4	17.7	4/	17.7	---	4.1	4.1
1978/79 5/														
JUNE-SEPT.	4.1	26.2	0.1	30.4	1.1	0.5	2.5	2.3	6.4	4/	6.4	---	24.0	24.0
OCT.-DEC.	24.0	---	---	24.0	1.1	0.6	2.2	3.8	7.7	4/	7.7	---	16.3	16.3
JAN.-MAR.	16.3	---	4/	16.3	0.9	0.7	0.2	1.9	3.7	4/	3.7	---	12.6	12.6
APR.-MAY														
MKT. YEAR														

1/ RESIDUAL; ROUGHLY APPROXIMATES TOTAL FEED USE. 2/ UNCOMMITTED, GOVERNMENT ONLY. 3/ INCLUDES TOTAL LOANS. 4/ LESS THAN 50,000 BUSHELS. 5/ PRELIMINARY. *TOTALS MAY NOT ADD DUE TO ROUNDING.

Table 14.--Rye: Flour and cash prices, 1975-79

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
						MINNEAPOLIS, WHITE FLOUR (Dollars per cwt.)							
1975	6.78	7.01	8.21	8.30	8.35	7.98	7.70	7.86	7.85	8.02	8.01	8.18	7.85
1976	8.94	9.04	8.64	8.60	8.25	8.20	8.24	8.62	8.76	8.82	8.85	8.70	8.64
1977	8.14	6.99	6.52	6.96	7.65	7.92	8.34	8.54	8.80	9.10	9.29	9.52	8.15
1978	9.03	8.45	7.73	7.90	7.90	8.01	8.05	7.94	7.74	7.66	7.76		
						MINNEAPOLIS NO. 2 (Dollars per bushel)							
1975	2.49	2.58	3.04	3.03	3.01	2.86	2.73	2.82	2.81	2.89	2.88	2.96	2.84
1976	3.24	3.22	2.88	2.90	2.77	2.68	2.70	2.77	2.80	2.82	2.82	2.79	2.87
1977	2.53	1.94	1.79	2.06	2.28	2.46	2.56	2.69	2.82	2.94	3.05	3.22	2.53
1978	2.93	2.59	2.22	2.36	2.33	2.47	2.44	2.37	2.41	2.36	2.38		

Table 15.--Rye: Acreage, yield, and production, United States, annual 1969-79

Year of harvest	Acreage seeded 1/	Acreage harvested	Yield per harvested acre	Production
	1,000 acres	1,000 acres	Bushels	1,000 bushels
1969	3,959	1,291	23.4	30,204
1970	4,196	1,427	25.8	36,840
1971	4,842	1,751	28.1	49,223
1972	3,458	1,050	26.9	28,256
1973	3,380	955	25.8	24,677
1974	2,828	784	22.3	17,506
1975	2,829	729	21.9	15,958
1976	2,652	721	20.7	14,951
1977	2,652	704	24.6	17,312
1978	2,985	995	26.3	26,160
1979 2/	3,077			

1/ Seeded for all purposes in preceding fall.

2/ Preliminary.

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Weights, Measures and Conversion Factors

Bushel weights:
- Wheat & soybeans = 60 lbs.
- Corn, sorghum & rye = 56 lbs.
- Barley (grain) = 48 lbs.: malt = 34 lbs.
- Oats = 32 lbs.

Bushels to metric tons:
- Wheat & soybeans = bushels x .027216
- Barley = bushels x .021772
- Corn, sorghum, rye = bushels x .025400
- Oats = bushels x .014515

1 Metric ton equals:
- 2204.622 lbs.
- 22.046 hundredweight
- 10 quintals
- 1,000 kilograms
- 36.7437 bushels wheat or soybeans
- 39.3679 bushels corn, sorghum, or rye
- 45.9296 bushels barley
- 68.8944 bushels oats

Area:
- 1 Acre = .404694 hectares
- 1 Hectare = 2.4710 acres

Yields:
- Wheat = bushels per acre x 0.6725 = quintals per hectare
- Rye, corn = bushels per acre x 0.6277 = quintals per hectare
- Barley = bushels per acre x 0.5380 = quintals per hectare
- Oats = bushels per acre x 0.3587 = quintals per hectare